

STORM WATER POLLUTION PREVENTION PLAN

FOR

POSSUM POINT POWER STATION

19000 Possum Point Road
Dumfries, VA 22026

Prepared by:
Dominion Generation
Environmental Services & Projects

May 2016

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PLAN REVIEW AND CERTIFICATION

VA0002071 Part I.E.2.b.7.d. Signature and Plan Review (SWPPP Cross Reference #20)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature:		Date
Printed Name:	Jeffrey C. Heffelman	
Title:	Director – Power Generation Station	

1.0 FACILITY INFORMATION

1.1 Facility Description – General

VA0002071 Part I.E.2.b.2. *Site Description* (SWPPP Cross Reference #7)

Possum Point Power Station is a gas and oil fired steam electric generating station. The principle wastewater discharges enter Quantico Creek. An oil dock and two cooling water intake structures originate from the Virginia shoreline of the Potomac River and extend into the Maryland waters of the Potomac River. The station is approximately thirty-five miles south of Washington D.C. and twenty-two miles from Fredericksburg, Virginia. The facility's latitude is 38° 32' 12.2" and longitude is 77° 16' 37.8". A Topographic Map of the Facility, which includes 640 acres total, is included in Appendix A.

Driving Direction: To reach Possum Point Power Station from Interstate 95, take the Dumfries – Manassas exit at Route 234 south. Take a right at the first traffic light on Route 1 south. Turn left off Route 1 (0.5 miles) onto Possum Point Road. The Power Station is located 4 miles off Route 1 at the end of Possum Point Road.

1.2 Facility Owner and Operator

Facility Operator:	Dominion Generation	Owner Name:	Virginia Electric and Power Co.
Address:	19000 Possum Point Road, Dumfries, VA 22026	Address:	5000 Dominion Blvd. Glen Allen, VA 23060
Telephone:	(703) 441-3813	Telephone:	804-273-3800

2.0 Contacts & Team Members

2.1 Pollution Prevention Team

VA0002071 Part I.E.2.b.1. *Pollution Prevention Team* (SWPPP Cross Reference #6)

Name	Title	Contact Number
Jeffrey C. Heffelman	Director – Power Generation Station (1)	(703) 441-3880
Jeffrey R. Marcell	Environmental Supervisor (2)	(703) 441-3813
Barbara Monteiro	Station Chemist III (3)	(703) 441-3808
Dana West	Station Chemist II (3)	(703) 441-3874
(24 Hour Coverage)	Shift Supervisor (5)	(703) 441-3832
Ian Whitlock	Environmental Specialist III (4)	(804) 273-2991

(1) RESPONSIBLE PERSON FOR OVERALL COORDINATION AND DEVELOPMENT.

(2) RESPONSIBLE PERSON FOR IMPLEMENTATION, TRAINING, AND REVISIONS TO PLAN.

(3) RESPONSIBLE PERSON FOR INSPECTION AND PLAN DEVELOPMENT.

(4) RESPONSIBLE PERSON FOR PERMIT INTERPRETATION FOR COORDINATION OF CORPORATE ENVIRONMENTAL AND STATION REQUIREMENTS.

(5) DAILY PLANT OPERATIONS.

2.2 SPILL PREVENTION AND RESPONSE

VA0002071 Part I.E.1.c. *Release of Hazardous Substances or Oil in Excess of Reportable Quantities* (SWPPP Cross Reference # 4)
VA0002071 Part I.E.2.b.4. *Spill and Leaks* (SWPPP Cross Reference # 9)
VA0002071 Part I.E.2.b.6.b)(iv) *Spill Prevention and Response Procedures* (SWPPP Cross Reference # 12)

The Station's Director, O&M Manager(s), and Environmental Supervisor are on call 24 hours a day 7 days a week. The Station's Operator(s) are to contact any of the above individuals in the event of a spill and/or leak.

Facility spill response procedures are referenced in the SPCC/ODCP/FRP plans and include the emergency contact numbers. In addition to the above reference plans, Possum Point's Emergency & Evacuation Procedures are located in the Safety Coordinator's Office and available electronically in the Operation's Folder. Spill history is provided in Section 7.1 of this plan.

Notification Procedure In the event of a facility emergency, the following list of emergency contacts may be necessary. In addition to the information below, Possum Point Power Station has a Facility Response Plan (FRP) which details spill procedures and notification requirements.

The initial contact should be made to the Control Room by telephone at (703) 441-3832.

Station personnel responsible for Station Operations will then evaluate the situation and determine the remainder of contacts that need to be made.

Person or Agency	Telephone Number
Station Director	(804) 317-5679 (cell)
Station Operation Manager	(757) 503-0040 (cell)
Environmental Supervisor	(703) 609-9015 (cell)
VA Department of Environmental Quality (DEQ)	(703) 583-3800
National Response Center	(800) 442-8802
VA Department of Emergency Services	(800) 468-8892 24-hour
Prince William County LEPC	(703) 792-7405 (703) 792-7020

Reports of Noncompliance	<p>Any issues determined as noncompliant with the current VPDES permit shall be reported in accordance with the VPDES VA0002071 permit Part II, Sections F, G, H and I. Verbal notification shall be made to the VA Department of Environmental Quality (DEQ) Northern Regional Office within 24 hours of the discovery of the noncompliance issue. During normal working hours (8am-5pm, Monday-Friday) call the VA DEQ Northern Regional office at (703) 583-3800 and outside of normal working hours, call the VA Emergency Services at 1-800-468-8892. The following items are defined as noncompliance and have specific VPDES requirements for information needed in making a report:</p> <ul style="list-style-type: none">• Unauthorized Discharges (VPDES permit Part II, Section F. & G.);• Unusual or Extraordinary Discharges (VPDES permit Part II, Section H.);• Bypass Discharges (VPDES permit, Part II, Section U.); and• Any Spill and/or Leaks to State Waters.
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Note: most reports of noncompliance will also require a written letter be submitted within 5 days of the notification.

2.3 POTW City Notification Requirement

N/A

Possum Point Power Station discharges their sanitary waste to Prince William County Service Authority, specifically H.L. Mooney Waste Water Treatment Plant. (Note back ground history email in Appendix J).

3.0 SAMPLING / MONITORING AND INSPECTION REQUIREMENTS

3.1 Summary of Outfalls

VA0002071 Part I.E.2.b.2. *Site Description* (SWPPP Cross Reference #7)

Possum Point Power Station's foot print includes an approximate total of 640 acres. Of the 640 acres, the drainage areas subject to the VPDES Storm Water program are described below.

- Discharge Point S5: Discharges to Potomac River. Receives runoff from approximately 3.9 acres between Unit #5's Cooling Towers. The area is approximately 50% impervious buildings and 50% pervious grass with packed gravel. Outfall discharges to the mouth of Quantico Creek near the southeast corner of Unit #5 Cooling Tower A.
- Discharge Point S61: Discharges to Quantico Creek. Receives runoff from approximately 2.8 acres from the main entrance way to the plant, the gravel area west of the "Old" Combustion Turbine buildings, a portion of the roadway leading from the "Old" Combustion Turbines to the northwest end of the 115 kV Switchyard, grassy area and railway located west of the 115 kV Switchyard, and the west end of the maintenance shop including the west ½ of the Maintenance Shop roof. The area is estimated to be 60% impervious (buildings, roads), and 40% pervious (gravel, grass, woods, riparian buffer) areas.
- Discharge Point S42: Discharges to Potomac River. Receives runoff from approximately 6.6 acres, which collects storm water through multiple drop inlets located around the perimeter of Unit #5 boiler and dust collector. The area is estimated to be 20% impervious (buildings, road) and 80% pervious (gravel, grass). One of the drop inlets receives drainage conveyed via ditch from the "Old" Combustion Turbines' oily-water separator, used as tertiary containment.
- Discharge Point S31: Discharges to Potomac River. Cooling Tower Mist (Allowable Non-Storm Water) Area north end of Unit #5 Cooling Tower B, includes 2 drop inlets that drain the 0.15 acres. Area consist of 10% Pervious (gravel & grass) and 90% impervious (road).
- Discharge Point S35: Discharges to Potomac River. The drainage area includes approximately 0.15 acres that is 90% impervious (road).
- Discharge Point S36: Area is located that around Units 1&2 stacks and the road under Units 3&4 Precipitators. This drainage area includes two drop inlet, one located under the Units 3&4 Precipitator and the other on the roof of Units 3&4 Screen Wells. The area consists of approximately 0.11 acres that are 30% pervious (gravel) and 70% impervious (road, roof).

- Discharge Point S37: Receives runoff from the area around Administration Building which is mainly vehicle parking, roof drainage from the Admin. Bldg and eastern ½ of the Maintenance Shop. The area consist of approximate 2.0 acres that are 40% pervious (grass and gravel) and 60% impervious (parking lot, roads, and roof tops).
- Discharge Point S49: Discharges to Potomac River and collects drainage from area east Unit #5 Boiler and north of Oil Dock Foam House. This area includes one drop inlet and consist of approximately 0.15 acres that are 50% pervious (gravel) and 50% impervious (roof).
- Discharge Point S77: Discharges to Potomac River and collects drainage conveyed through a concrete pipe from the area surrounding the eastern edge of the No. 6 fuel oil pipe bench leading north to the Unit #5 Transfer Pump House. This area is approximately 0.14 acres that are 90% pervious (river bank, gravel) and 10% impervious.
- Discharge Point S78, S79, S80, & S94 (MD): Discharges to Potomac River. All four outfalls are concrete flumes that drain the exterior berm of the Heavy Oil Tanks' containment. These areas' acreage are (0.61, 0.56, 0.36, and 0.23) respectively. The areas are 100% pervious (vegetative slope) with no industrial activity.
- Discharge Point S86: Discharges to Quantico Creek. Area collects drainage in ditches on both sides of the Rail Road, the ditches along Rail Road industrial storm water the from west of the 230 kV Switchyard, all of the M&R Station, west of the light oil containment tanks, the parking lot "Old" Combustion Turbines, and the Main Entrance. This area is approximately 34.6 acres and estimated 95% pervious (gravel, grass, vegetated slopes) and 5 % impervious (road, parking lot).
- Discharge Point S95: Discharges to Potomac River. Area consists of multiple ditches and graded surfaces that channel to a concrete plume that discharges to the Potomac River. This area is approximately 2.6 acres which is estimated 90% pervious (gravel, grass, vegetated slopes) and 10% impervious (road, parking lot).
- Discharge Point S107: Discharges to Quantico Creek. Collects storm water from the berm of Pond D via two drop inlets. This outfall is designed to collect groundwater infiltration from the Pond D's berm for stabilization. This outfall was sampled to characterize the groundwater discharge. The area is approximately 14.4 acres and estimated to be 100% pervious (grass, vegetative slopes).
- Discharge Point S108: Discharges to a Beaver Pond which flows into Quantico Creek. Collects storm water from the berm of Pond D via two drop inlets. This outfall is designed to collect stormwater runoff from the Pond D's future capped area and all of the stormwater runoff from Pond E. The area is approximately 234 acres and estimated to be 100% pervious (grass, vegetative slopes).

3.2 Non-Storm Water Discharges

3.2.1 Certification of Non-Storm Water Discharges

The non-storm water discharge certification is included in the Appendix H.

3.2.2 Allowable Non-Storm Water Discharges

VA0002071 Part I.E.1.b. Allowable Non-Storm Water Discharges (SWPPP Cross Reference #2)
VA0002071 Part I.E.1.b. Allowable Non-Storm Water Discharges – Cooling Tower Mist Study (SWPPP Cross Reference #3)

This facility is permitted by the above referenced permit in Part I.G.2.b., page 28 of 29, for the following “Allowable Non-Storm Water Discharges”. Please refer to Appendix C for the allowable sources drainage locations and Section 5.0 of this plan for various storm water controls. Other than the Demineralized Water trailer changeouts, none of the other Allowable Non-Storm Water discharges occur at a frequency that warrants additional Best Management Practices (BMPs).

- Discharge from fire fighting activities;
- Fire Hydrant Flushing;
- Potable Water Sources including waterline flushings;
- Uncontaminated air conditioning or compressor condensate;
- Irrigation drainage;
- Landscape watering provided all pesticides, herbicides, and fertilizers have been applied in accordance with manufacturer’s instructions;
- Pavement wash waters where no detergents are used and no spills or leaks of toxic or hazardous materials have occurred (unless all spilled material has been removed);
- Routine external building wash down which does not use detergents;
- Uncontaminated groundwater or spring water;
- Foundation or footing drains where flows are not contaminated with process materials;
- Demineralized water from storage tanks;
- Incidental windblown mist from cooling towers that collects on rooftops or adjacent portions of the facility, but, NOT intentional discharges from the cooling tower (e.g. “piped” cooling tower blowdown or drains). Note: The Unit 5 cooling towers are not chemically treated and therefore the incidental discharges do not require analysis for the cooling tower chemicals. The drainage area around Unit 6 cooling tower is collected and comingled with the station’s industrial waste water which is monitored in accordance with VPDES permitted Outfall 004 limitations; and
- Uncontaminated river water.

Possum Point Power Station’s discharges are permitted by VA DEQ under an Individual Industrial Major VPDES permit. The VPDES permit No. VA0002071 combines both industrial wastewater and storm water discharges. The following are the VPDES permitted wastewater outfalls:

Discharge Point 001 & 002: Combined outfalls that discharge to Quantico Creek. The discharges are Condenser Cooling Water & Cooling Tower Blowdown and receive flow from internal Discharge Outfalls 201 & 202:

Discharge Point 201: Cooling Tower Blowdown for Unit 5.

Discharge Point 202: Cooling Tower Blowdown for Unit 6.

Discharge Point 003: Condenser Cooling Water for Unit 4 that discharges to Quantico Creek.

Discharge Point 004: Low Volume Waste Settling Pond that discharges to the mouth of Quantico Creek.

Discharge Point 005: Ash Pond E to Quantico Creek. Receives flows from internal Outfalls 501 & 502:

Discharge Point 501: Oil Waste Treatment Basin.

Discharge Point 502: Metals Cleaning Waste Treatment Facility.

Discharge Point 007: Units 1&2 Intake Screen Backwash to Potomac River.

Discharge Point 008: Intake Screenwell Freeze Protection to Potomac River.

Discharge Point 009: Units 3&4 Intake Screen Backwash to Potomac River.

Discharge Point 010: Groundwater, stormwater, and toe drain water collected from Pond D.

Discharge Point 503: Comingled Process Water, Ash Dewatering Water, Contact Water (Interim) / Ash Pond D Underdrain / Outfall 010 / Internal Outfall 501 (Final) – When Routed to Outfall 001/002 or Outfall 004

3.3 Monitoring Requirements

VA0002071 Part I.E.1.a. Quarterly Visual Examination of Storm Water (SWPPP Cross Reference #1)

The Quarterly Visual Monitoring is required to be conducted periods of (January – March) (April - June) (July – September) (October – December). See the above permit condition for the details on qualifying rain events and adverse weather conditions. An example of Visual Inspection forms are provided in Appendix E.

QUARTERLY VISUAL MONITORING PARAMETERS OF NPDES PERMIT

Discharge Characteristics	Monitoring Frequency	NPDES Permit # Monitoring Location
Color	Quarterly	Outfalls S5, S61, S42, S95, S107*, S108*
Odor	Quarterly	Outfalls S5, S61, S42, S95, S107*, S108*
Clarity	Quarterly	Outfalls S5, S61, S42, S95, S107*, S108*
Floating Solids	Quarterly	Outfalls S5, S61, S42, S95, S107*, S108*
Settle Solids	Quarterly	Outfalls S5, S61, S42, S95, S107*, S108*
Suspended	Quarterly	Outfalls S5, S61, S42, S95, S107*, S108*
Foam	Quarterly	Outfalls S5, S61, S42, S95, S107*, S108*
Oil Sheen	Quarterly	Outfalls S5, S61, S42, S95, S107*, S108*
Other Obvious Indicators	Quarterly	Outfalls S5, S61, S42, S95, S107*, S108*

Note: *In addition to the requirements specified in the table above, S107 and S108 will be inspected every five business days and no later than 48 hours following a measurable storm event for the presence of floating solids and visible foam in other than trace amounts (See Section 3.4 below).

Upon successful demonstration to and written approval from DEQ confirming that all groundwater contributions to Outfall 010 discharge have been removed, Outfall S107 will be designated as a stormwater-only discharge. At that time S107 will be monitored under this SWPPP.

3.4 SWPPP Inspection Requirements

VA0002071 Part I.E.2.b.6.b)(v) *Routine Facility Inspections* (SWPPP Cross Reference # 13)

The above referenced permit condition requires the identified storm water exposed items identified in this plan to be inspected at least quarterly. The suggested schedule; (**January – March**), (**April – June**), (**July – September**), and (**October – December**). The facility petroleum items will be inspected in accordance with the SPCC requirements, please refer to the SPCC plan. (Please see section 7.3 of this plan for Storm Water inspection documentation and Appendix E of this plan for blank Storm Water inspection forms.)

Outfalls S107 and S108 shall be inspected once every five business days and no later than 48 hours following a measureable storm event. Any corrective actions identified during the inspections shall be implemented as soon as possible, but no later than seven days after discovery. The inspection reports and any corrective actions must be documented in the Ash Handling Area Outfall Inspection Form (Appendix E) of the SWPPP.

3.5 Comprehensive Site Compliance Evaluation

VA0002071 Part I.E.2.b.7.d. *Comprehensive Site Compliance Evaluation* (SWPPP Cross Reference #19)

The Storm Water Pollution Prevention Plan shall be reviewed and updated on an **Annual** basis and can coincide with one of the quarterly inspections. For records of annual reviews, see section 7.4 and/or Appendix D.

Note: The permit requires the SWPPP to be amended within 30 days of the Annual evaluation and 60 days to implement the Action Items unless DEQ approves a written time extension request.

4.0 POTENTIAL POLLUTANT SOURCES

VA0002071 Part I.E.2.b.3. Summary of Potential Pollutant Sources. (SWPPP Cross Reference #8)

A SWPPP evaluation and associated SPCC Plan identify the following equipment and areas that could potentially impact storm water as a result of spills during oil or chemical transfer operations. The likelihood is low and is primarily associated with storm drain vicinity to the equipment/operation. Please refer to Appendix B & C maps for locations and drainage patterns. Historical copies of the facility's SWPPP are archived electronically which include the exposures during that period, copies are available upon request.

4.1 SUMMARY OF POTENTIAL POLLUTANT SOURCES

Facility Area	Activity	Pollutant(s) or Pollutant Parameter(s)
Barge Unloading Area	Barge Off Loading	POLLUTANT: Petroleum DIRECT EXPOSURE: No POTENTIAL TO DISCHARGE: Yes
Laydown Area	Bulk Equipment Unloading and Storage (Temporary / Outages)	POLLUTANT: Metals DIRECT EXPOSURE: Yes POTENTIAL TO DISCHARGE: Yes
Metal Dumpster	Storage	POLLUTANT: Metal DIRECT EXPOSURE: No POTENTIAL TO DISCHARGE: Yes
Sand and Gravel Stock Pile	Unloading and Storage	POLLUTANT: Sand and Gravel DIRECT EXPOSURE: No POTENTIAL TO DISCHARGE: Yes
General Refuse Areas (3 Locations)	Storage	POLLUTANT: General Refuse DIRECT EXPOSURE: No POTENTIAL TO DISCHARGE: Yes
Oil Dock Fire Foam House	Unloading and Storage	POLLUTANT: Fire Foam DIRECT EXPOSURE: No POTENTIAL TO DISCHARGE: Yes
Possum Point C.T. False Start Drain Tank (Old C.T.s)	Storage and Unloading	POLLUTANT: Petroleum DIRECT EXPOSURE: No POTENTIAL TO DISCHARGE: Yes
Ash Ponds	Storage, Loading, and Transportation	POLLUTANT: Metals DIRECT EXPOSURE: No POTENTIAL TO DISCHARGE: Yes

4.2 Site Bulk Chemicals/ Materials

VA0002071 Part I.E.2.b.6. Storm Water Controls (SWPPP Cross Reference #11)

Chemical / Material Storage		
Material Exposure (Map Key ID "S#")	Storage Capacity (Gallons)	BMPs
General Refuse Dumpster Map Key (S1, S2, S3, S15, S17 & S18)	NA	Equipped with lids and/or tarps, Drains to Outfall S42, Outfall S61, Outfall S31.
Laydown Area Map Key (S4)	NA	Graded with rock - Drains to Outfall S5 and S86.
Metal Dumpster Map Key (S5)	NA	Equipped with lids and or tarps - Drains to Outfall S95.
Sand and Gravel Stock Pile Map Key (S6)	Varies	Equipped with concrete pad and covered with tarps – Drains to Outfall S5.
Possum Point C.T. False Start Drain Tank (Old C.T.s) Map Key (S7)	500	Double walled tank, slope concrete pad curbed on three sides. Drain is protected with Active-X membrane. Drains to Outfall S42.

Chemical Containing Equipment		
Equipment / Material (Map Key ID "S#")	Storage Capacity (Gallons)	BMPs
Unit 5A Cooling Towers Map Key (S8)	Flow Through 330,000 gpm	- Drains to Outfalls S5. Concrete Basin.
Unit 5B Cooling Towers Map Key (S9)	Flow Through 330,000 gpm	- Drains to Outfalls S5 and Outfall S31. Concrete Basin.

Chemical & Material Unloading & Transfer Facilities		
Material Exposure (Map Key ID "S#")	Spill Potential	BMPs
Fire Fighting Foam Map Key (S10)	Product Transfer from tote/drum	Stored inside of building - Drains to Outfall S46.
Oil Water Separator Sump Clean-out Map Key (S11)	Max Truck Capacity (3,000 gallons)	Catch Pans and pads under the connection. The tanker utilizes vacuum pressure. – Outfall S86
No. 2 Dock Oil Water Sump Clean-out Map Key (S12)	Max Truck Capacity (3,000 gallons)	Catch Pans and pads under the connection. The tanker utilizes vacuum pressure. – A release would be to the dock area over the Potomac River, which is protected by shoreline boom.
Possum Point C.T. False Start Drain Tank (Old C.T.s) Map Key (S13)	Max Truck Capacity (3,000 gallons)	Catch Pans and pads under the connection. The tanker utilizes vacuum pressure. – A release would be to the dock area over the Potomac River. Drain is equipped with Active-X membrane material. Outfall S42.
C.T. Portable Restroom Map Key (S14)	1000 gallon Sewage 400 Water	The Portable Restrooms are strategically placed in areas away for storm drain inlets and ditches. The area around the Portable Restroom is inspected in accordance with the Combustion Turbine EIG. Outfall S61
Ash Pond Closure	Variable	No ash will be stored outside Ash Ponds A, B, C, D, and E. Ash is directly loaded from inside Ash Ponds A, B, C, and E into oversized dump trucks and transported to Ash Pond D for disposal.. The oversized dump trucks will be staged onto gravel pads within each pond during loading activities to minimize tracking of ash on roadways. The ash will be dewatered prior to loading the oversized dump trucks so that free liquid is minimal during hauling. Trucks are inspected for overall operational efficiency and container structural integrity before departure from the ponds. Truck tires are cleaned as needed by washing tires within Ponds A, B, C, D, and E prior to mobilizing onto haul roads. Inspect on-site haul roads for ash deposits during every work shift and before any rain event. Clean/remove ash from roadways as needed. The trucks will transport the ash directly to Pond D for disposal. Stormwater runoff BMPs include silt fence, super silt fence, rock check dams, hay bales, and temporary sediment basins.

4.3 Site Bulk Oil

VA0002071 Part I.E.2.b.6. *Storm Water Controls* (SWPPP Cross Reference #11)

The oil related tables, please refer to the SPCC/ODCP/FRP Plans.

4.4 EPCRA 313 § Reporting Requirements

VA0002071 Part I.E.1.c. *Release of Hazardous Substances or Oil in Excess of Reportable Quantities* (SWPPP Cross Reference # 4)

VA0002071 Part I.E.2.b.6. *Storm Water Controls* (SWPPP Cross Reference #11)

This Facility generates electricity by burning natural gas and oil therefore the relevant EPCRA 313 (TRI) pollutants are typically associated with natural gas and oil. A TRI report is submitted on an annual basis and identifies all TRI chemicals that may be released to Air, Land and Water. Copies of the Annual TRI reports are filed in the Station ECC's office and available upon request.

4.5 Sediment & Erosion

VA0002071 Part I.E.2.b.6. *Storm Water Controls* (SWPPP Cross Reference #11)

VA0002071 Part I.E.2.b.6.b)(vi) *Sediment and Erosion Control* (SWPPP Cross Reference # 15)

4.5.1 Sediment and Erosion Control

The Station utilizes curbs, concrete ditches, rocks and grates/inlets to control storm water runoff. Some of the grates/inlets are surrounded with hay bales and silt fences. Approximately 22% of the property is impervious surfaces such as roof tops and paved parking lots and roads. The other 78% are previous with ponds, graveled and some grassy areas. No evidence of significant erosion is currently present.

4.5.2 Construction Erosion & Sediment Control

Appendix G is reserved for insertion of Erosion and Sediment Control Plans and Construction Storm Water Pollution Prevention Plans in the event of construction activity at the station. However, due to their complexity, filing these plans in Appendix G may not be practical. Therefore, these plans are often times filed outside this SWPPP and maintained onsite with other related storm water files. A Construction Storm Water Permit is required for land disturbance of one or more acres. However, VSMP coverage is still required for land disturbance greater than 2,500 square feet for facilities that lie within the Chesapeake Bay Preservation Area. The Construction Storm Water Permits are developed with a specific focus on site topography, drainage patterns, soils, ground cover, and adjacent runoff areas.

Currently a Construction SWPPP is in effect for the haul road construction used for the Pond Closure Project, as required by General VPDES Permit No. VAR10H301. This SWPPP and Permit are located in the on-site Construction Trailer.

4.6 Salt Storage

VA0002071 Part I.E.1.d. *Additional Requirements for Salt Storage* (SWPPP Cross Reference # 5)

This station does not maintain a storage pile of salt.

5.0 STORM WATER CONTROLS

VA0002071 Part I.E.2.b.6. *Storm Water Controls* (SWPPP Cross Reference #11)
VA0002071 Part I.E.2.b.6.b)(vi) *Sediment and Erosion Control* (SWPPP Cross Reference # 15)
VA0002071 Part I.E.2.b.6.b)(vii) *Management of Runoff* (SWPPP Cross Reference #16)

Storm water management controls appropriate for the Station can be summarized as follows:

UNIT OR AREA NAME	APPROPRIATE STORM WATER MANAGEMENT CONTROLS
Runoff Control	Drop in-let, silt-traps, rocks, gravel, curbing, hay bales, rock check dams, temporary sediment basins, silt fence, and super silt fence.
Material Transfer Areas	Secondary containment as applicable, drainage system, written procedures, personnel attendance during transfers, spill kits, and inspections.
Storage Tanks	Secondary containment, drainage system, shutoff valves, loading/unloading procedures, inspection, and spill kits.
Oil-Filled Mechanical/Electrical Equipment	Secondary containment, written procedures, drainage system, spill kits, inspections, and deployment of oil boom.
Demineralized Water Production (Trailers)	All portable water trailers are transported to a drain which leads to the Low Volume Settling Pond system. (Outfall 004)

5.1 Structural BMPs

Refer to Section 4.2, 4.3 and 4.5 for structural BMPs in place at this Station.

5.2 Non-Structural BMPs

The Station has Operating Procedures that are related to storm water contact management. They reduce the potential for storm water contact due to equipment failure or operational losses. The associated OPs are listed in section 5.2.1:

5.2.1 Employee Training

VA0002071 Part I.E.2.b.6.b)(v) *Employee Training* (SWPPP Cross Reference #14)

The positions noted (2) in the Pollution Prevention Team in Section 2.1 of this plan are responsible for providing the storm water training. The station documents the training via the company's Learning Management System (LMS). The Station has the following training that encompasses storm water management:

- New Employee Orientation
- Safety Inspections
- Hazard Communication Program
- Annual Storm Water Pollution Prevention

The Station has developed Operational Procedures associated with storm water and used as training. Copies of the Operational Procedures are maintained in the Station's internal computer network under the Operation's Folder for product deliveries and available upon request.

Material Safety Data Sheets/Safety Data Sheets (MSDS/SDS) are also utilized as part of training to ensure that employees understand the nature of materials that could cause equipment leaks. Refer to Station's files for copies of the MSDS/SDS.

5.2.2 Good Housekeeping

VA0002071 Part I.E.2.b.7.a. *Good Housekeeping* (SWPPP Cross Reference # 17)

Section 6.0 of this plan includes the details for each Good Housekeeping requirement. The station has routine weekly general refuse pick-ups.

5.2.3 Routine Facility Inspections

VA0002071 Part I.E.2.b.6.b)(v) *Routine Facility Inspections* (SWPPP Cross Reference # 13)

Routine facility inspections are comprehensive in scope, refer to Appendix E of this plan for the Storm Water Inspection and SPCC/ODCP/FRP plan for the Oil Inspection forms. The inspections include:

- Storm Water: Monthly Inspection and Annual Evaluation (Note: This station does not currently have ASTs located in the drainage areas of the permitted storm water outfalls. Therefore, the weekly inspections of the items other than those conducted in the oil program do not apply.)
- SPCC Plan form "Daily, Weekly, and Monthly Oil Inspection."

5.2.4 Spill Prevention and Response Procedures

VA0002071 Part I.E.2.b.6.b)(iv) *Spill Prevention and Response Procedures* (SWPPP Cross Reference # 12)

Please refer to Section 2.2 of this plan and the SPCC/OCDP/FRP plans for general spill response procedures.

5.3 Preventive Maintenance

VA0002071 Part I.E.2.b.7.c. *Preventive Maintenance* (SWPPP Cross Reference #18)

Based upon facility evaluation, Section 4.0 (Potential Pollutant Sources) identified those types and locations of equipment that can potentially impact storm water as a result of operational or equipment failure or human error. The associated BMPs with Section 4.0 of this plan will be inspected in accordance with Section 3.4 and Appendix E of this plan. The continuing structural or non-structural BMPs that are currently utilized, and will continue to be utilized, until planned BMP feasibility studies are completed for possible future construction and/or implementation. Preventive maintenance of the BMPs associated with ash pond closure activities will be addressed through the implementation of the Ash Pond Closure Stormwater Management Inspection Forms (Appendix E). These inspection forms will be completed daily during ash pond closure activities.

5.4 Eliminating and Minimizing Exposure

The majority of the industrial activity conducted at this facility is done in areas that drain to the station's industrial waste water treatment systems. The materials exposed to precipitation and pose a potential to be discharged via a storm water outfall are identified in Section 4.0 of this plan.

6.0 GOOD HOUSEKEEPING MEASURES

VA0002071 Part I.E.2.b.7.a. Good Housekeeping Measures (SWPPP Cross Reference # 17)

6.1 Fugitive Dust Emissions

Wet suppression is implemented on an as needed basis.

6.2 Delivery Vehicles

Bulk chemicals come in closed container trucks. Facility has safe fill and shutdown procedures that are to be used in transfer process and posted at each unloading area. Delivery of petroleum products are handled in accordance with the SPCC Plan.

6.3 Fuel Oil Unloading Areas

Measures to prevent or minimize contamination of storm water runoff from fuel oil unloading areas are described in the SPCC Plan.

6.4 Chemical Loading/Unloading Areas

Operations are notified upon arrival of bulk shipment. Station personnel trained in spill prevention response are available during unloading. Most of the chemicals used at the Station are stored indoors. Chemical unloading areas are equipped with containment and drains to handle any spill. Safe fill and shutdown procedures are used during unloading events.

6.5 Miscellaneous Loading/Unloading Areas

Various structural Best Management practices such as berming, curbing, containment, and written procedures are utilized for both chemical and petroleum unloading areas.

6.6 Small Liquid Storage Tanks

Bulk chemical spills from storage tanks are contained, cleaned up, and/or routed to the Station's Low Volume Settling Ponds or Oil Retention Pond. Transfer facilities are equipped with spill and overflow protection. (e.g. containment curbing, drip pans, drip diapers, and/or other containment devices). Trained personnel handle small clean-ups and contractors are hired to handle large clean-ups.

6.7 Large Bulk Fuel Storage Tanks

Refer to Section 4.4 and the facility's SPCC Plan maintained under separate cover.

6.8 Spill Reduction Measures

Refer to Section 5.0 and the facility's SPCC Plan maintained under separate cover.

6.9 Oil Bearing Equipment in Switchyards

Refer to Section 4.4 and the facility's SPCC Plan maintained under separate cover.

6.10 Residue Hauling Vehicles

The Station does not routinely haul coal or coal by-product. The Station ensures all residue hauling vehicles will be inspected for proper covering over the load, adequate gate sealing and overall integrity

of the body or container. Vehicles without load coverings or adequate gate sealing, or with leaking containers or beds will be repaired as soon as practicable.

6.11 Ash Loading Areas

This facility no longer burns coal. Therefore, ash is no longer disposed from the Station into the on-site Ash Ponds. The Oil Ash from Unit 5 is vacuumed into a sealed container and transported to an industrial landfill. Ash Ponds A, B, and C will be clean closed. Ash Pond D will be capped and closed in-place. The ash from Ash Pond E will be removed and the pond will be used as a storm water pond.

Ash material from Ash Ponds A, B, C, and E is currently scheduled to be disposed in Ash Pond D.

6.12 Areas Adjacent to Disposal Ponds or Landfills

When this facility operated via coal, the ash was sluiced to a settling pond, therefore ash hauling/tracking is not an issue for this facility. The integrity of Ash Pond's berms and banks are periodically inspected for erosion issues. For vehicle tracking management, please refer to section 6.10 above.

6.13 Landfills, Scrapyards, Surface Impoundments, Open Dumps, General Refuse Sites

The General Refuse dumpsters are equipped with lids to prevent contact of rainwater. Scrap metal is placed in dedicated metal debris dumpsters for disposal. During construction activities, large pieces of equipment are stored in a Laydown area. Oily rags and absorbents are placed in the dedicated Oily Debris dumpster equipped with lids.

6.14 Maintenance Activities

Vehicle and Equipment Storage Areas:

Vehicles awaiting maintenance are stored in Coal Yard Service Building.

Fueling Areas:

Measures to prevent or minimize contamination of storm water runoff from fueling areas are described in the SPCC Plan.

Vehicle and Equipment Cleaning Areas:

Vehicle washing is limited to drains that connect to Wastewater Outfall 004. (No Detergents are used)

Vehicle and Equipment Maintenance Areas:

On-road vehicle and heavy equipment maintenance is performed in the Coal Yard Service building or under cover on the East side of the Unit 5 Sandfilter Building.

6.15 Material Storage Areas

Materials are placed in covered storage areas or, if stored outdoors, in closed containers or under cover. Storage units for all materials are maintained in good condition.

7.0 DOCUMENTATION

The following subsections represent the various methods of documentation.

7.1 Spills and Leaks

VA0002071 Part I.E.2.b.4. *Spill and Leaks* (SWPPP Cross Reference # 9)
VA0002071 Part I.E.2.b.6.b)(iv) *Spill Prevention and Response Procedures* (SWPPP Cross Reference # 12)

The reportable spills list is provided in Appendix I of this plan and locations are referenced on the Appendix C drawing.

7.2 Storm Water Monitoring Requirements

VA0002071 Part I.E.1.a. *Quarterly Visual Monitoring* (SWPPP Cross Reference #1)
VA0002071 Part I.E.2.b.5. *Sampling Data* (SWPPP Cross Reference #10)

Monitoring records are maintained in Station's files and available upon request. An example monitoring form is provided in Appendix E. A summary of the monitoring data is conducted during the Annual Evaluation and is provided in Appendix D.

7.3 Site Inspections

VA0002071 Part I.E.2.b.6.b)(v) *Routine Facility Inspections* (SWPPP Cross Reference # 13)

Routine Facility Inspections are conducted on a quarterly basis. At least once each calendar year, the routine facility inspection must be conducted during a period when storm water discharge is occurring. Inspection forms are in Appendix E and records are maintained in Station's files and available upon request.

7.4 Annual Evaluation

VA0002071 Part I.E.2.b.7.d. Comprehensive Site Compliance Evaluation (SWPPP Cross Reference #19)

Refer to Appendix D for evaluation summary forms and reports.

ANNUAL COMPLIANCE EVALUATION CERTIFICATION

Date of Site Visit	Purpose
July 16 & 17, 2008	Annual Evaluation
August 11 & 12, 2009	Annual Evaluation
August 17 & 18, 2010	Annual Evaluation
August 3, 2011	Annual Evaluation
August 13, 2012	Annual Evaluation
July 18, 2013	Annual Evaluation
August 7, 2014	Annual Evaluation
September 2, 2015	Annual Evaluation

7.5 Goals & Objectives

The storm water pollution prevention plan (SWPPP) has been developed as required by the Station's storm water discharge permit and to incorporate good engineering practices. This SWPPP describes this Station, its operations, identifies potential sources of storm water pollution at the facility, recommends appropriate BMPs or pollution control measures to reduce the discharge of pollutants in storm water runoff, and provides for periodic review of this SWPPP. It is the objective of this program to improve the quality of surface waters by reducing the amount of pollutants potentially contained in the storm water runoff being discharged.

7.6 Record of Review

VA0002071 Part I.E.2.b.7.f. Maintaining and Updating SWPPP (SWPPP Cross Reference #21)

Record of Reviews (SWPPP Permit Reference #13)				
Date of Inspection ¹	Date Minor SWPPP Revisions Completed ²	Date of Substantial BMP Modification ^{3,4}	Date of Comprehensive Site Evaluation Summary Report ⁵	Reason for Amendment
July 16 & 17, 2008			July 17, 2008	Annual Evaluation
August 11 & 12, 2009			August 12, 2009	Annual Evaluation
August 17 & 18, 2010			August 18, 2010	Annual Evaluation
August 3, 2011			November 14, 2011	Annual Evaluation
	July 31, 2012			Audit Findings
August 13, 2012			August 15, 2012	Annual Evaluation
July 18, 2013	July 18, 2013		September 24, 2014	Annual Evaluation
August 7, 2014	August 7, 2014		August 7, 2014	Annual Evaluation
September 2, 2015	September 16, 2015		September 23, 2015	Annual Evaluation
	March 17, 2016			Reissued VPDES Permit
	April 28, 2016			Pond D Status Changed to Active

¹ A Station inspection must be completed by qualified personnel familiar with Station operations in accordance with State and Federal SWPPP regulations.

² The SWPPP shall be modified as necessary to include minor changes in SWPPP text, Station controls or BMPs. Revision to the SWPPP must be completed within 30 days following the inspection, unless permission for a later date is granted in writing by the State NPDES authority.

³ If substantial SWPPP change is necessary including significant modification of existing BMPs or if the addition of new BMPs is necessary, implementation must be completed before the next anticipated storm event, if practicable, but not more than 60 days after completion of the comprehensive site evaluation, unless permission for a later date is granted in writing by the State NPDES authority. Refer to the Action Item Schedule on the next page.

⁴ The permittee shall amend the SWPPP whenever: (1) there is a change in design, construction, operation, or maintenance at the facility that has a significant effect on the discharge, or the potential for the discharge, of pollutants from the facility; (2) during inspections, monitoring, or investigations by facility personnel or by local, state, or federal officials, it is determined that the SWPPP is ineffective in eliminating or significantly minimizing pollutants from sources identified.

⁵ A report summarizing the scope of the inspection name(s) of personnel making the inspection, date(s) of the inspection, and major observations relating to the implementation of the SWPPP, and actions taken in accordance with the NPDES permit shall be made and retained as part of the SWPPP for at least five years from the date of the inspections.

Appendix A

Topographic Site Map and Site Vicinity Map (SWPPP Permit Reference #7)

Appendix B

Site Plan
(SWPPP Permit Reference #7)

Appendix C

Storm Water Drainage Areas (SWPPP Permit Reference # 2, 7, 9 & 12)

Appendix D

Annual Compliance Evaluation Summary Report (SWPPP Permit Reference #10, 19 & 20)

Appendix E

SWPPP Inspection Report Forms (SWPPP Permit Reference #1, 13)

Appendix F

Cooling Tower Mist Study (SWPPP Permit Reference #3)

Appendix G

Construction Sediment and Erosion Control

Appendix H

Storm Water Discharge Certification

Appendix I
Spill History
(SWPPP Permit Reference #9 & 12)

Appendix J
POTW Authorization Email